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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,776	12/07/2005	Wolfgang Hahn	449122085800	8299

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EXAMINER	
MILORD, MARCEAU	
ART UNIT	**PAPER NUMBER**
2618	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/559,776	HAHN ET AL.	
	Examiner	Art Unit	
	Marceau Milord	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5-8, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forslow (US Patent No 6937566 B1) in view of Baner et al (US Patent No 7113478 B2).

Regarding claims 1 and 11, Forslow discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), comprising: a data traffic including a plurality of layer 2 connections comprising a plurality of data flows in each case, with respect to connection-specific and/or data flow-specific handling (col. 7, lines 46-col. 8, line 36; col. 12, lines 9-51); and optionally routing the data traffic proportionately via a processing unit performing such handling (col. 10, lines 10-64; col. 13, lines 2-47).

However, Forslow does not specifically disclose the steps of separating data traffic arising in an access node of the mobile radio network.

On the other hand, Baner et al, from the same field of endeavor, discloses a General Packet Radio Service system in which a Serving GPRS Support Node operates a leaky bucket algorithm to control data flow, a packet control unit in the base station is arranged so that on connection of a new mobile, a flow control message in the form of new values of B the maximum bucket capacity and R the leak rate is sent to the Serving GPRS Support Node only when it is known that the new connection is non-bursty (col. 1, lines 45-61). Furthermore, the scheduler also divides the LLC PDU into blocks (separate the data traffic), sets up transmission windows and retransmissions of blocks for each TBF queue, and drops the TBF after a predetermined number of resent transmissions; on terminations of a call it also signals the end of a TBF queue to the DL scheduler. The BVC queue scheduler selects the appropriate queue for a mobile system. It directs each DL-UNITDATA PDU to that queue. Each MS queue is divided into an MS data queue and an MS signaling queue conveniently via use of two pointers in a common buffer (col. 2, lines 26-55;col. 3, lines 1-26). It is considered that the radio network includes an access node with a control function for separating data traffic arising in an access node. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Baner to the communication system of Forslow in order to provide a quality of service scheme which provides support for internet applications and their quality of service requirements for mobile communications systems having a packet data transmission capability.

Regarding claim 2, Forslow as modified discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), wherein a control function within the access node decides, based on the application-specific information and/or the local information

of an information unit integrated in an access node whether a layer 2 connection is to be routed via the processing unit where, based on the application-specific information and/or the local information, connection-specific and/or data flow-specific handling is carried out in each case (col. 12, lines 9-44; col. 13, lines 9-47).

Regarding claim 3, Forslow as modified discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), wherein when a communication to an application is set up by a subscriber, the application of a policy decision function transmits the application-specific information and the policy decision function via an interface authorizes the access node of the mobile radio network to set up one layer 2 connection or a plurality of layer 2 connections comprising a plurality of data flows in each case for the requested application and transmits the application-specific information (col. 12, line 27- col. 13, line 47; col. 13, line 49- col. 14, line 11).

Regarding claim 5, Forslow as modified discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), wherein the application-specific information with respect to connection-specific handling of the layer 2 connection is routed to the access node and the application-specific information with respect to data flow-specific handling of data flows within the layer 2 connection directly to the processing unit (col. 12, lines 1-42; col. 12, line 47- col. 13, line 24).

Regarding claim 6, Forslow as modified discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), wherein the application-specific information with respect to data flow-specific handling of data flows within a layer 2 connection is routed indirectly via the access node to the processing unit (col. 13, lines 15-47).

Regarding claim 7, Forslow as modified discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), wherein the processing unit is integrated into the access node of the mobile radio network (col. 9, lines 17-46;col. 10, lines 24-36)

Regarding claim 8, Forslow as modified discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), wherein a GPRS network is used as the mobile radio network (col. 10, lines 20-34;col. 14, lines 1-11).

Regarding claim 10, Forslow as modified discloses a data traffic separation method for use in a packet-oriented mobile radio network (figs. 2-5), wherein Quality of Service information is transmitted as the application-specific information (col. 12, lines 27-42;col. 13, lines 25-47).

Regarding claims 12 and 14, Forslow discloses a mobile radio network (figs. 2-5), comprising a plurality of data flows in each case in accordance with predetermined information (col. 7, lines 46-col. 8, line 36; col. 12, lines 9-51); and a processing unit for handling data flows separated by the control function and layer 2 connections comprising a plurality of data flows in each case forwarded to the processing unit (col. 10, lines 10-64; col. 13, lines 2-47).

However, Forslow does not specifically disclose the steps of separating data traffic arising in an access node of the mobile radio network.

On the other hand, Baner et al, from the same field of endeavor, discloses a General Packet Radio Service system in which a Serving GPRS Support Node operates a leaky bucket algorithm to control data flow, a packet control unit in the base station is arranged so that on connection of a new mobile, a flow control message in the form of new values of B the maximum bucket capacity and R the leak rate is sent to the Serving GPRS Support Node only when it is known that the new connection is non-bursty (col. 1, lines 45-61). Furthermore, the

scheduler also divides the LLC PDU into blocks (separate the data traffic), sets up transmission windows and retransmissions of blocks for each TBF queue, and drops the TBF after a predetermined number of resent transmissions; on terminations of a call it also signals the end of a TBF queue to the DL scheduler. The BVC queue scheduler selects the appropriate queue for a mobile system. It directs each DL-UNITDATA PDU to that queue. Each MS queue is divided into an MS data queue and an MS signaling queue--conveniently via use of two pointers in a common buffer (col. 2, lines 26-55;col. 3, lines 1-26). It is considered that the radio network includes an access node with a control function for separating data traffic arising in an access node. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Baner to the communication system of Forslow in order to provide a quality of service scheme which provides support for internet applications and their quality of service requirements for mobile communications systems having a packet data transmission capability.

Regarding claim 13, Forslow as modified discloses a mobile radio network (figs. 2-5), wherein the mobile radio network has a policy decision function for receiving, evaluating and immediate forwarding of the application-specific information to the control function of the access node (col. 12, lines 27-51;col. 13, lines 9-47).

3. Claims 4, 9, are rejected under 35 U.S.C. 103(a) as being unpatentable over as applied to claims 1 and 12 over Forslow (US Patent No 6937566 B1) in view of Baner et al (US Patent No 7113478 B2) above, and further in view of Charas (US Patent No 6880009 B2).

Regarding claims 4 and 9, Forslow and Baner disclose everything claimed as explained above except the features of an application-specific information that is routed via an

authentication, authorization and accounting server via a remote access dial-in user-server to the access node, wherein the billing information is transmitted as the application-specific information.

However, Charas shows in figure 2, a terminal that transmits a random access channel including payment information to an access node. The payment information identifies the Credential Verifier, the identity of the subscriber in an encrypted form and the credit verification in an encrypted form, e.g. a credit card number. This information is received in the access node which reads out the address to the Credential Verifier adds a transaction number to the user identity and credit verification and transmits that information to the identified Credential Verifier. The local policy enforcement point (LPEP) enforces policies with respect to authentication of subscribers, authorization to access and services, accounting, mobility and security for the subscriber that the LPEP serves. These policies are defined in the secure mobile portal (SMP) that acts as a PDP for the LPEP (col. 4, lines 29-66; col. 5, lines 14-52). In addition, Charas also shows in figure 4, a secure mobile portal (SMP) that defines policies with respect to authentication of subscribers, authorization to access and services, accounting, mobility and security for the subscribers that the SMP serves. Thus, the SMP contains an Encrypted Subscriber Register carrying subscriber IP addresses or network address identifiers (figs. 2-4;col. 5, line 59- col. 6, line 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Chavas to the modified system of Baner and Forslow in order to provide policy enforcement and service transparency when terminals roam between different heterogeneous networks.

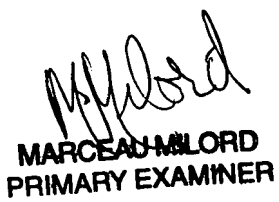
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MARCEAU MILORD



Marceau Milord

Primary Examiner

Art Unit 2618